

ABSTRACT

A new high-temperature solid electrolyte fuel cell comprising an electrolyte layer between two electrode layers is obtainable by a process comprising the steps: (i) applying electrolyte particles in a screen printing paste on an unsintered electrolyte substrate and sintering the thus produced structure, (ii) depositing a nano-porous electrode thin layer by a sol-gel-process or an MOD-process on the structure obtained according to step (i) and thermal treatment of the thus coated structure. The fuel cell optionally has an electrolyte boundary layer on the structured screen printed electrolyte layer which is applied by an MOD process.